



by

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The primary focus of the book is to explore the asymptotic behavior of problems formulated within cylindrical structures. Various physical applications are discussed, with certain topics such as fluid flows in channels being particularly noteworthy. Additionally, the book delves into the relevance of elasticity in the context of cylindrical bodies.

In specific scenarios where the size of the cylinder becomes exceptionally large, the material's behavior is determined solely by its cross-section. The investigation centers around understanding these particular properties.

Since the publication of the first edition, several significant advancements have been made, adding depth and interest to the content. Consequently, new sections have been incorporated into the existing edition, complemented by a comprehensive list of references.

## Contents:

- Introduction
- The Dirichlet Problem in Some Unbounded
- The Pure Neumann Problem
- Periodic Problems
- Anisotropic Singular Perturbation Problems
- Eigenvalue Problems
- Elliptic Systems
- The Stokes Problem
- Variational Inequalities
- Calculus of Variations

**Readership:** Perfect for graduate students and researchers in applied mathematics and engineering seeking to understand the asymptotic behavior of partial differential equations within cylindrical structures.

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